Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338

DECLARATION OF SHERRY LICHTENBERG
On Behalf of MCI, Inc.

1. My name is Sherry Lichtenberg. I am Senior Manager for Operational Support Systems Interfaces and Facilities Development in MCI's U.S. Sales and Service Organization. My business address is 1133 19th Street N.W., Washington, D.C. 20036.

2. I have twenty-two years of experience in the telecommunications market: fifteen years with AT&T and seven with MCI. I joined MCI in 1997 as a member of the initial team responsible for the development of MCI's mass market local service products, both UNE-P and facilities-based. Prior to joining MCI, I held a number of positions at AT&T, including working in the General Departments organization, where I developed methods and procedures and billing and ordering systems for use by the Bell Operating Companies. My current role with MCI includes designing, managing, and implementing MCI's local telecommunications services to residential and small business customers on a mass market basis nationwide. I support both UNE-P product development and

our testing and planning for facilities-based competition via UNE-L. I have testified in numerous proceedings before the FCC and state public service commissions, including multiple state 271 proceedings and state impairment and batch hot cut proceedings.

3. The purpose of this declaration is to describe the customer impacting operational issues associated with using UNE-L as a service delivery method for residential and small business customers. These issues stem from the physical changes required when a competitive LEC uses its own facilities in conjunction with the incumbent LEC loop, and the difficulty in exchanging information about customers between all carriers in the seamless manner that mass market customers have come to expect. Migration of customers to UNE-L is made more difficult by the problems associated with obtaining and managing customer service records, loop make-up information, directory listings, local number portability, and trouble handling.[1] Before UNE-L can be considered a workable mass market service delivery mechanism, these impediments to UNE-L migration must be removed.[2] Premature withdrawal of switching before the appropriate processes and systems are in place will have significant adverse consequences for consumers, carriers and competition.

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[1] The California Public Utilities Commission recognized the unproven status of UNE-L as a mass markets service delivery method in a recent proposed decision. *See Order Instituting Rulemaking on the Commission's Own Motion into Competition for Local Exchange Service*, Proposed Decision of ALJ Pulsifer, Opinion Regarding Hot Cut Processes and Pricing (July 28, 2004) ("California Proposed Decision").

[2] The Declaration of Michael Starkey and Sidney Morrison concurrently being filed by MCI fully explores the issues associated with the physical provisioning of unbundled loops to serve mass market customers.

4. A UNE-L migration is operationally more difficult than a migration via UNE-P, because moving a customer to UNE-L requires the customer's line to be disconnected manually from the ILEC switch and reconnected to the CLEC switch (the "hot cut"). This manual process is subject to both human and systems errors that can result in customer impacting problems, ranging from incorrect directory listing information to loss of dial tone. Even before the cut can be ordered, pre-order information must be gathered from a number of sources, particularly when the customer is migrated from another CLEC. As the cut is made, the customer's new information must be populated in multiple data bases, the customer's number must be ported to the new carrier, and switch translations must be completed. Not all of these processes have performance metrics, and none has been tested under the volumes that would arise with widespread UNE-L use. Much must be done to clarify and simplify the loop provisioning process before it can be used to serve the mass market.

5. The loop provisioning process, whether it involves a hot cut, a new installation, or the port-in or out of a customer's telephone number, encompasses all of the steps necessary to migrate the customer from one carrier to another, including the pre-order exchange of customer and facilities information necessary to construct the order and post-ordering coordination that must take place, including establishing the ported number in the downstream data bases, creating new or changed directory listings, and managing customer trouble and churn in a multi-party environment. All must function smoothly for a trouble-free customer migration experience.

6. If a migration to UNE-P fails, the customer may be double billed or receive the wrong features. But if a UNE-L migration is unsuccessful, the outcome can be much worse: the customer may lose dial tone altogether; may be unable to receive calls; or may find his unlisted number published in every directory in his city. The transition from UNE-P to UNE-L depends on the use of a number of information exchange systems that were tested only in passing during the 271 process, where the ILECs' ability to meet the service volume requirements of a competitive market relied on UNE-P. These systems have not yet demonstrated that they can support mass market competition. In addition, because the 271 testing process focused primarily on the migration of customers to UNE-P, it did not include a review of Customer Service Record exchange between CLECs (and between the losing CLEC and the ILEC in winback situations), the Local Number Portability process, updates to data bases (like the Number Portability Administration Center (NPAC) and the Local Exchange Routing Guide (LERG)), directory listings changes, or the ability to resolve customer impacting troubles (such as loss of dial tone) in a timely fashion.

7. This declaration will discuss in detail each of these information exchange systems and the customer impacting problems that are likely to result if they are not sufficiently robust.

CUSTOMER SERVICE RECORDS (CSR)

8. Customer Service Records (CSRs) provide the information necessary to determine a customer's service configuration. Generally, the CSR includes the customer's name, service address, telephone number, current service and features,

directory listing, and long-distance and intraLATA carriers. Without an accurate CSR, a CLEC will not be able to place an order.

9. The data provided by the CSR is required to determine what features the customer has and whether those features can be provided from another carrier's switch. When a customer migrates from one UNE-L carrier to another, the CSR also identifies the actual facility (circuit ID) that serves the customer. In UNE-L to UNE-L migrations, including winbacks to the ILEC, the circuit ID for the facility actually serving the customer must be provided on the local service request (LSR). Obtaining this information and ensuring that it is accurate and complete is a gating factor in a CLEC's ability to submit a valid order. For small business customers, the CSR is also critical to establishing hunt groups, since the CSR shows how the hunt group is designed and provides a complete listing of the business' telephone numbers to ensure that all lines can be migrated simultaneously.

10. CSR information resides with the carrier whose switch serves the customer. If the customer is a UNE-P or resale customer, the CSR data are resident in the ILEC systems because the customer is still being served by the ILEC switch. When a customer migrates to UNE-L, the CSR is removed from the ILEC billing database and is no longer updated with changes to features and services. And while some customer data still resides elsewhere in the ILEC systems, those data are no longer retrievable by customer name or telephone number, only by circuit ID.

11. During the pre-order phase of a migration, a CLEC must obtain current customer and service information in order to create the order. In the UNE-P environment,

pre-order queries are automated. CLECs can retrieve retail and resale CSRs, and some UNE-P CSRs from the ILEC pre-order systems in a matter of seconds, and the accuracy and speed of this process are measured via performance metrics. By contrast, UNE-L migrations between CLECs and winbacks from UNE-L to retail require manual CSR retrieval steps that delay the migration process by several days. MCI has found that the average time to retrieve a CSR from other carriers is longer than three days, and only 50% of requests are completed in a timely fashion. In a recent filing in Michigan, SBC confirmed that it experiences similar problems with obtaining CSRs for CLEC winbacks.[3]

12. When an ILEC customer first migrates to a UNE-L CLEC, that CLEC obtains the customer's CSR from the ILEC. This CSR includes the customer's current feature information but not the circuit ID, which will be used by the ILEC to track where the customer's loop will appear on the CLEC intermediate distribution frame after the migration. The circuit ID information is returned to the initial UNE-L provider with the Firm Order Confirmation (FOC) and must be stored in that UNE-L provider's systems and passed on to the next service provider to allow the re-use of the customer's facility.

13. Retrieving the circuit ID information from the losing CLEC in a future migration is critical, since any subsequent UNE-L provider will need that information to ensure that the same physical loop will be used to serve the customer, avoiding

[3] In the matter of Ameritech Michigan's submission on performance measures, reporting and benchmarks, pursuant to the October 2, 1998 Order in MPSC Case No. U-11654, SBC's Position on Disputed Issues Concerning Michigan End User Migration Rule, MPSC Case No. U-11830, September 17, 2004, at 3-4.

the need for additional dispatches, delay and the potential customer disruption of changing inside wiring due to the installation of a new facility utilizing different binding posts in the customer's network interface device. Once the customer has migrated to the UNE-L carrier, the ILEC is generally no longer able to associate a customer's telephone number with the circuit ID – only the initial UNE-L provider can do that.[4] Because all information needed for UNE-L migrations is not readily available, the current CSR exchange process does not function properly for UNE-L, leading to migration delays and errors in critical areas such as loop provisioning and directory listings.

14. Currently, there are no standard processes for the exchange of CSR data between CLECs. The majority of states have not issued rules requiring all CLECs to provide this information, and there is no centralized data base or information clearinghouse from which to request CSR information.[5] While wireline CLECs and ILECs have been working together in various state venues to develop CLEC-to-CLEC and CLEC-to-ILEC migration and winback processes,[6] the ability to share CSRs and obtain circuit ID information electronically and in a standard

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[4] Once a customer migrates to a UNE-L provider, his circuit is inventoried in the Trunk Information Record Keeping System (TIRKS) rather than the Customer Record Information System (CRIS) causing a nomenclature change and resulting in the need to track the customer by circuit ID rather than telephone number.

[5] Each CLEC and ILEC has its own rules for providing CSRs. Frontier, for example, recently informed MCI that it will charge it $35 per hour for the preparation and delivery of a CSR. And, during the recent CLEC-to-CLEC migrations collaborative in Michigan, TDS stated that it does not maintain all the required CSR information (e.g., customer directory listings) for its customers.

[6] These workshops have not included VoIP and wireless providers who must also manage customer transitions.

format is not yet in place. In some states, CLEC-to-CLEC migration processes have been worked out on paper; however, each company still must provide CSR information using its own transmission method (e.g., fax, website, email), and no quality assurance processes have been developed.

15. The introduction of UNE-L under the current structure will create a situation where customers will be stuck where they land in their first migration (because other carriers have no means to obtain the information necessary to migrate the customer to another carrier) -- unless ILECs install more and more facilities to compensate for the inability to identify the current circuit being used. This problem will be particularly acute in the fast growing small business segment, where the ability to provide hunting and other business type features is critical and where directory listings are key components of a business's advertising strategy.

16. Going forward, it will be necessary to implement a solution to these problems. MCI proposes the establishment of a CSR clearinghouse, similar to the CARE clearinghouse maintained by CLECs and ILECs. The clearinghouse would identify the owner of a particular customer and launch a query to retrieve that customer's service information from the relevant carrier. The clearinghouse would function by directing requests to the proper providers following a single data communications protocol. Under this proposal, CLECs would maintain CSRs in a standard format and would agree to standard delivery methods and time frames. Companies that did not want to maintain their own CSRs, or could not develop the software necessary to electronically transmit that information to other

carriers, could contract with the third- party clearinghouses that would inevitably spring up to support this process. State commissions would develop metrics and enforcement procedures to ensure that information was exchanged within the appropriate time frames. Until such a distributed method is developed, the ILEC should continue to provide access to the information it has about customers on their network as well as the information remaining after a customer leaves the network.[7]

LOCAL FACILITIES ADMINISTRATION AND CONTROL SYSTEM (LFACS)

17. The Local Facilities Administration and Control System (LFACS) is the database that provides information on where loops are currently installed and the make-up (e.g., copper, UDLC, IDLC) of those loops. LFACS is also the database that drives the selection of a loop in the ILEC's automated provisioning process.

18. Customers can be migrated to UNE-P regardless of the make-up of their underlying loop facility. This is not necessarily the case with UNE-L. Under UNE-L, a competitive LEC must first query the LFACS database during the pre-ordering process to obtain loop make-up information and determine whether that loop can serve the customer. The competitive LEC needs to know, for example, whether the customer's loop is all-copper (and can be unbundled), or is served through an IDLC system (which the incumbents claim cannot be unbundled and

[7] CLECs have recommended this process in both the Florida and Michigan CLEC-to-CLEC migration proceedings.

must instead be transferred to alternate facilities, if available),[8] or whether the customer has fiber to the home. Also, CLECs must know whether potential customers have a copper loop that will support DSL service, which is gleaned from LFACS. Customers with DSL provided via line splitting (CLEC UNE-P voice and CLEC data) generally must have their DSL disconnected completely, their loop transitioned to UNE-L, and then have their DSL re-connected to complete the migration process. It is critical that competitors be able to determine the make-up of the customer's loop in order to predict potential delays and provisioning issues when quoting due dates or offering service packages.

19. If LFACS is unavailable or the data it houses are incorrect, CLECs will not be able to respond to their customers correctly or in a timely manner. If data are missing, CLECs will expend extra time and money requesting information manually. This manual process is both time consuming and expensive.

20. LFACS was evaluated and some updates were made as part of the 271 process; however, this evaluation was conducted only in terms of parity with retail and did not examine LFACS' ability to provide the information necessary to allow CLECs to move customers to UNE-L. If the loop make up information were incorrect or were still in paper records that had not yet been entered into the data base, the parity standard held that neither the ILEC nor the CLEC was harmed by the extra time required to look for or correct the records. There was no volume

[8] As is fully explained by the Starkey/Morrison Declaration, IDLC loops in fact can be unbundled.

testing. LFACS records were reviewed only as an adjunct to the few UNE-L migrations included in the 271 OSS tests.

21. During its trial of UNE-L in BellSouth territory, MCI discovered a defect in LFACS that prevented the ILEC and the CLEC from obtaining information about UNE loops assigned to a CLEC. When the loop was migrated to the CLEC, it was no longer accessible via an LFACS query.[9] If the loop is inaccessible via LFACS, MCI cannot determine the make up of the loop it was assigned at customer migration and cannot determine whether it can add DSL to that customer. In that scenario, CLECs also cannot see the make-up of CLEC assigned loops for CLEC-to-CLEC migrations.

22. MCI's limited trial of UNE-L in Georgia also uncovered errors and omissions in the loop make up information for some of the loops it was attempting to migrate. Loops that were 100% copper were rejected by BellSouth's ordering systems as including fiber. In other cases, all copper loops were listed in LFACS as part fiber, part loop. Other queries returned only partial loop make up information (either the feeder or the aerial portion of the report was blank)

23. SBC has cited concerns with its own LFACS system in its territory as a reason for the three-order process required to move a customer from line splitting back to UNE-P. The SBC process requires related orders that must be worked simultaneously to disconnect the DSL, disconnect the customer's loop, and then re-install the loop in the ILEC systems as a UNE-P facility. The SBC LFACS

[9] While MCI opened a "defect request" with BellSouth to correct this problem, no details on the "fix" have been reported to date.

system sees the DSL loop as "in use" when the CLEC sends an order to remove DSL but keeps UNE-P in place. This results in the assignment of a new loop that may not be connected to the existing port, causing the customer to lose dial tone.

24. LFACS should be audited for accuracy and a process developed to ensure that it is accurately maintained (real time) when the ILEC alters or changes its loop plant. This is particularly important as ILECs take down their copper plant and replace it with fiber. In addition, CLECs must be able to "reserve" a spare copper facility when a customer is migrating to ensure that that migration can take place.[10] Currently, while LFACS will allow a CLEC to determine whether there is spare copper to support the unbundling of the customer's service, that copper loop may be "taken" by another CLEC or the ILEC itself to serve another customer in the process of migrating or changing his loop to allow the provision of data services.

DIRECTORY LISTINGS

25. As part of the UNE-L migration order, CLECs must send directory listing (DL) information to the ILEC to include in both the printed and on-line directories of each company. These changes to directory listings are not necessary with UNE-P. In a UNE-P environment, the CLEC completes the directory listing form as "no changes" and sends it with its order to the ILEC for processing. While an "as is" (i.e., no change) directory listing can be ordered from the ILEC as part of the "first" retail to UNE-L migration (or UNE-P to UNE-L conversion), this process must be repeated with full information for each subsequent change. This

[10] BellSouth alone of the ILECs currently provides this process, but MCI has been unable to test it.

increases the likelihood of errors or deletions in the directory as it is "opened" to remove listings and "closed" to put the same listings back in. This process could result in directory listings being left out of the phone books, inserted into the incorrect locations in the phone books or containing incorrect customer information. Again, the sheer volume of directory changes to be processed if UNE-L were to become a viable mass-market service delivery method could have significant impacts on the directory publishing and operator services databases.

26. Cavalier Telephone Company, a UNE-L provider in the mid-Atlantic, has repeatedly complained about directory listing problems. Recently, Cavalier filed with the Virginia State Corporation Commission for dispute resolution with Verizon to resolve issues involving directory listing errors. Cavalier alleged that Verizon published listings for Cavalier customers that had been clearly labeled by Cavalier as "non-published."[11] In addition, during the 271 process in Virginia, Cavalier raised numerous issues involving the directory listing input process including Cavalier's own listing in the directory, which appeared in the wrong location. In his report to the Virginia Commission on Verizon's 271 application, the Hearing Examiner acknowledged the problems surrounding Verizon's directory listing process and required Verizon to work to improve its process for dealing with CLEC directory listings and also to develop additional performance

[11] Letter from Stephen T. Perkins, General Counsel, to Lydia R. Pulley, Vice-President, General Counsel & Secretary, Verizon Virginia, Inc., Notice of Intention to File an Alternative Dispute Resolution Petition with the Virginia State Corporation Commission, dated July 2, 2004.

measures to accurately determine performance levels.[12] As more carriers are required to shift from UNE-P to UNE-L, it is highly likely that they will experience directory listing issues as the need to enter and reenter this information increases.

27. During the Michigan CLEC-to-CLEC collaborative, TDS, a facilities-based CLEC, noted that it does not retain directory listing information in its systems for its customers at all. TDS instructs CLECs to obtain this information from SBC, but SBC does not maintain and update this information after a UNE-L migration, thus SBC cannot provide it either.

28. In an effort to alleviate directory listing problems, MCI recommends that "migrate as is" functionality for directory listings should be available for CLEC-to-CLEC migrations.

LOCAL NUMBER PORTABILITY (LNP) PROCESSES

29. The Number Portability Administration Center (NPAC) is the general name for the database and processes involved in local number portability. NPAC includes the multiple systems that are used to upload LNP data and distribute that data through the telephone network to all providers. A local number portability transaction is required each time that a customer moves from one switch to another.

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[12] *In the Matter of Verizon Virginia, Inc. To Verify Compliance with the Conditions Set Forth in 47 U.S.C. §271(c)*, Case No. PUC-2002-00046, July 12, 2002, Report of Alexander F. Skirpan, Jr., Hearing Examiner at 135-47.

30. Since UNE-P utilizes ILEC switching, there is no need to send transactions for UNE-P migrations to the NPAC, keeping the number administration task to a manageable level. Under UNE-L, however, each customer move requires an LNP transaction to be created, loaded, and transferred to the downstream systems. Because LNP has never been volume tested and transactions are increasing dramatically, NPAC may not be able to handle the volumes that would occur in a dynamic UNE-L market. If the NPAC does not operate properly, has significant outages, or is not updated rapidly, customers will not be able to receive calls.

31. When a customer migrates to UNE-L, a transaction must be sent to NPAC to identify the "destination" switch for calls to this number. The ILEC initiates this transaction by creating a "10-digit trigger" in the donor (losing) switch at the time the UNE-L order is created. The trigger will cause incoming calls to "dip" into the NPAC database to determine the switch that now houses the number. The CLEC initiates the second step of this process when it receives notification from the ILEC that the cut has been completed. The CLEC then sends a transaction to NPAC to claim the number. Until the CLEC claims the number in the NPAC database, the customer will be unable to receive any incoming telephone calls.[13] If the NPAC transaction is not completed successfully, (for example, the NPAC system is down, the request is formatted incorrectly, or the ILEC has not notified the CLEC that the cut is complete), the customer will not be able to receive calls, since they will be directed to the incorrect home switch. These problems may

[13] Recently in New York, Verizon has indicated that it will now retain control over both of the NPAC orders in a UNE-L migration.

occur on a switch-by-switch basis, causing some calls to complete to the UNE-L customer but not others.

32. When the customer changes carriers again, the losing carrier must "unlock" the existing record to allow the winning carrier to "replace" it with its destination code. Both churn and the addition of wireless local number portability will raise the number of transactions processed by the NPAC. Concerns have been raised in the records of several state proceedings regarding the capacity of the NPAC to process the large number of ports that may be generated daily as a result of hot cuts from the ILEC switch under UNE-P to the CLEC switch utilizing UNE-L.[14]

33. For example, in May 2004, the entire NPAC system for the southeast United States had to be taken down to reload data because of problems with database formatting. MCI received numerous complaints during this period from its LNP-only customers who could not receive calls from end users served by multiple wireless and wireline companies (e.g., Alltel). Aside from being a nuisance, the inability to receive incoming calls can lead to loss of business and also could result in customers being unable to receive callbacks from the 911 operator and could become a health and safety issue.

34. The states should bring the key players in this issue together to ensure that these requirements can be met. These collaborative discussions must include the ILECs, CLECs, and the current NPAC administrator, Neustar, to determine NPAC's actual capabilities and to develop metrics for the completion of number

[14] *See, e.g.,* California Proposed Decision, at 52-54.

portability tasks. [15] Volume testing or scalability analysis will also be required to determine whether NPAC can actually handle the volumes of numbers that will be ported in a single day.[16] Since a failure of the NPAC system will have a direct negative impact on customers, it is critical that the movement to UNE-L for mass markets customers not take place until all parties are clear that the system can support the increased volumes.[17]

35. The loop provisioning process - both the hot cut itself and the databases and processes that are required to support UNE-L migrations - must function smoothly, or mass market customers will not be adequately served by UNE-L. The customer impacting problems associated with providing customer service record information, accurate loop make up data, correct directory information, and timely and accurate updates to the LNP data bases must be corrected, and the Commission should direct the industry to work together with the states to put the necessary processes in place to support UNE-L.

36. This concludes my declaration on behalf of MCI, Inc.

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15 Neustar has not participated in the CLEC-to-CLEC migration discussions and has been only peripherally involved in some of the batch hot cut discussions.

16 Current LNP forecasts may not include the full spectrum of potential added transactions, since few CLECs and even fewer VoIP providers participate in the forecasting process.

17 Neustar has told both ILEC and CLEC representatives that it can handle "any volumes," but these are marketing rather than technical analyses.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 9/30, 2004.

Sherry Lichtenberg

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